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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-------------------------|-------------|----------------------|--------------------------|------------------|
| 10/646,782 | 08/25/2003 | Hiroshi Miyazaki | 061069-0305699 | 1093 |
| 909 | 7590 | 12/17/2003 | | EXAMINER |
| PILLSBURY WINTHROP, LLP | | | BLACKMAN, ROCHELLE ANN J | |
| P.O. BOX 10500 | | | | |
| MCLEAN, VA 22102 | | | ART UNIT | PAPER NUMBER |
| | | | 2851 | |

DATE MAILED: 12/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------|-------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/646,782 | MIYAZAKI, HIROSHI | |
| Period for Reply | Examiner | Art Unit | |
| | Rochelle Blackman | 2851 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 25 August 2003.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-8 is/are pending in the application.

 4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1, 2, 4/1, 4/2, 5/1, 5/2, 6/1, 6/2, 7/4/1, 7/4/2, 8/5/1, and 8/5/2 is/are rejected.

7) Claim(s) 3, 4/3, 5/3, 6/3, 7/4/3, and 8/5/3 is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 25 August 2003 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) The translation of the foreign language provisional application has been received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

| | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>08/25/03</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claim 1 and 2 is objected to because of the following informalities: In claim 1, line 10 and in claim 2, line 2 of the claim, the phrase, "convex portion metal-plated" should be changed to - -metal-plated convex portion- -. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 2, 4/1, 4/2, 6/1, 6/2, 7/4/1, and 7/4/2 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakagawa, U.S. Patent No. 6,425,698.

Nakagawa discloses a "focal-plane shutter for cameras"(see FIGS. 1-6), comprising: "two base plates provided with a blade chamber between the two base plates, each having an aperture for exposure at about a center"(see 1 and 2 of FIGS. 1-3, 20 and 22 of FIGS. 4 and 5, and 20 and 31 of FIG. 6); and a "shutter blade group having a plurality of arms pivotally mounted to one of the two base plates and at least one blade pivotally supported by means of a plurality of joint shanks with respect to the plurality of arms, placed in the blade chamber so that heads of the joint shanks project

toward a photographer side"(for "shutter blade group", see 3a-e and 6a-e of FIG. 1-3, 23a-e and 26a-e of FIGS. 4 and 5, and 23a-e and 36a-e of FIG. 6; for "plurality of arms", see 4-8 of FIGS. 1-3, 24-27 of FIGS. 4 and 5, and 37 and 38 of FIG. 6; for "plurality of joint shanks", see 4a and 5a of FIG. 1 and 24a-e and 25a-e of FIG. 4), "wherein, of the two base plates, a base plate placed on the photographer side has at least one convex portion metal-plated on an object-side surface thereof, and the arms slide along the convex portion and are shifted to the object side immediately before the heads of the joint shanks moved inside the aperture in an actuation of the shutter blade group reach a position corresponding to an edge of the aperture"(for "base plate placed on the photographer side", see 2 of FIGS. 1-3, 22 of FIGS. 4 and 5, and 31 of FIG. 6; and for "convex portion", see 15f of FIGS. 3, 5, and 6); "wherein a surface hardness of the convex portion metal-plated is substantially the same as a surface hardness of each of the arms"(see "convex portion" 15f and "arms" 4-8, 24-7, 37, and 38 of FIGS. 1-6) "wherein the convex portion is configured so that the object-side surface of a member mounted to the base plate placed on the photographer side is spherical"(see "convex portion" 15f in FIGS. 3, 5, and 6); "wherein space between the two base plates is partitioned by an intermediate plate, the shutter blade group is placed between the intermediate plate and the base plate placed on the photographer side, and an additional shutter blade group pivotally supporting at least one blade by means of joint shanks with respect to a plurality of arms pivotally mounted to the one base plate is placed between the intermediate plate and a remaining base plate"(for "intermediate

plate", see 20 of FIGS. 5 and 6; for "additional blade group", see 26a-e of FIG. 5 and 23a-e of FIG. 6; and for "remaining base plate", see 21 of FIG. 5 and 22 of FIG. 6).

2. Claims 1, 2, 4/1, and 4/2 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakagawa et al., U.S. Patent No. 4,150,890.

Nakagawa discloses a "focal-plane shutter for cameras"(see FIGS. 1-3), comprising: "two base plates provided with a blade chamber between the two base plates, each having an aperture for exposure at about a center"(see 1 and 2 of FIGS. 1-3); and a "shutter blade group having a plurality of arms pivotally mounted to one of the two base plates and at least one blade pivotally supported by means of a plurality of joint shanks with respect to the plurality of arms, placed in the blade chamber so that heads of the joint shanks project toward a photographer side"(for "shutter blade group", see 3a-e and 6a-e of FIGS. 1-3; for "plurality of arms", see 4-8 of FIGS. 1-3; and for "plurality of joint shanks", see 4d and 7d of FIGS. 1-3)), "wherein, of the two base plates, a base plate placed on the photographer side has at least one convex portion metal-plated on an object-side surface thereof, and the arms slide along the convex portion and are shifted to the object side immediately before the heads of the joint shanks moved inside the aperture in an actuation of the shutter blade group reach a position corresponding to an edge of the aperture"(for "base plate placed on the photographer side", see 2 of FIG. 2 and for "convex portion", see 2b of FIG. 3); "wherein a surface hard-ness of the convex portion metal-plated is substantially the same as a surface hardness of each of the arms"(see "convex portion" 2b and "arms" 4-8 in FIGS. 1-3); and "wherein the convex portion is configured so that the object-side surface of a

member mounted to the base plate placed on the photographer side is spherical"(see "convex portion" 2b in FIG. 3).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 5/1, 5/2, 8/5/1, and 8/5/2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa, U.S. Patent No. 6,425,698 as applied to claims 1 and 2 above, and further in view of Fukada et al., U.S. Patent No. 4,926,202.

Nakagawa discloses the claimed invention except for a base plate made of "synthetic resin".

Fukada discloses a shutter base plate of a camera shutter may be formed of a synthetic resin in order to reduce cost and simplify production process (see col. 1, line 67 to col. 2 line 1.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the base plate of the Nakagawa reference of synthetic resin, as taught by Fukada in order to reduce cost and simplify production process.

2. Claims 5/1, 5/2, 8/5/1, and 8/5/2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa et al., U.S. Patent No. 4,150,890 as applied to claims 1 and 2 above, and further in view of Fukada et al., U.S. Patent No. 4,926,202.

Nakagawa discloses the claimed invention except for a base plate made of "synthetic resin".

Fukada discloses a shutter base plate of a camera shutter may be formed of a synthetic resin in order to reduce cost and simplify production process (see col. 1, line 67 to col. 2 line 1.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the base plate of the Nakagawa reference of synthetic resin, as taught by Fukada in order to reduce cost and simplify production process.

Allowable Subject Matter

1. Claims 3, 4/3, 5/3, 6/3, 7/4/3, and 8/5/3 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
2. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does either alone or in combination neither discloses nor makes obvious the combination of the focal-plane shutter for cameras comprising: the "convex portion" with the particular features recited in above identified claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tachihara et al., U.S. Patent No. 6,190,060 comprises light-

shielding blades and drive arms of a focal plane shutter composed of beryllium-aluminum alloy for focal plane shutter of a camera.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rochelle Blackman whose telephone number is (703) 308-2879. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russell Adams can be reached on (703) 308-2847. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-9318.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

RB

Russell Adams
RUSSELL ADAMS
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